Work Order ID 116863

April-24-14 8:25:49 AM

116863

Item ID: D4803-1 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID:

Item Name: Strut **Stop** *NS2*

Start Date: 5/02/14 **Start Qty:** 1.00 *1*

Required Date: 5/02/14 **Req'd Qty:** 1.00 *1*

Reference:

Cust Item ID:

Customer:

Approvals: **Process Plan:** MLS **Date:** 14-04-25 **Tooling:** _____ **Date:** _____ **Run Start** *NR1*

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr: D4803 / Revision Nbr: REV A									
100		0.00							DAS 40 9-89
100	DOOSAN LATHE					1	Ø		
Doosan	**Memo**	0.00							14/05/14
Doosan Lathe	1- Turn as per Folio FB273 Rev: N/A & Dwg D4803 Rev: A								
	2- Deburr								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							DAS 40 9-89
110						1	Ø		
QC	**Memo**	0.00							14/05/14
Quality Control									

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric
☐ Cracks
☐ Crimp/Kink/Ripple/Wave
☐ Cuffs
☐ Crushing
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Marks/Chatter
☐ Turning Sequence
☐ Wave/Twist in Tube

General

☐ Bend
☐ BOM/Route
☐ Broken/Damage/Defect
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drawing
☐ Drill Holes
☐ Finish
☐ Fit/Function
☐ Folio/Program
☐ Grain
☐ Hardware
☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
☐ Mislabeled
☐ Misread
☐ Off-set
☐ Out of Calibration
☐ Out of Sequence
☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

Work Order ID 116863

April-24-14 8:25:49 AM

116863

Item ID: D4803-1 **Accept** *N9000040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Strut
Start Date: 5/02/14 **Start Qty:** 1.00 *1*
Required Date: 5/02/14 **Req'd Qty:** 1.00 *1*
Reference:
Cust Item ID:
Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC8- Inspect parts - second check	0.00				1	0		DAS 20 9-89 14-05-14
120									
QC	**Memo**	0.00							
Quality Control									
130	Outsource process - NDT per QSI038 4.1	0.00							
130									
Outsource2	**Memo**	0.00							
Outsource process - NDT	ISSUE P/O : 24315								
	C OF C IS REQUIRED								
140	Receive & Inspect for Damage & Mat'l Certs	0.00							
140									
Packaging	**Memo**	0.00							
Packaging									

CL 14/05/23 (1)

14/05/23 (1)

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐ ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Prep	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric
☐ Cracks
☐ Crimp/Kink/Ripple/Wave
☐ Cuffs
☐ Crushing
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Marks/Chatter
☐ Turning Sequence
☐ Wave/Twist in Tube

General

☐ Bend
☐ BOM/Route
☐ Broken/Damage/Defect
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drawing
☐ Drill Holes
☐ Finish
☐ Fit/Function
☐ Folio/Program
☐ Grain
☐ Hardware
☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
☐ Mislabeled
☐ Misread
☐ Off-set
☐ Out of Calibration
☐ Out of Sequence
☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other _____

Item ID: D4803-1 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Strut
Start Date: 5/02/14 **Start Qty:** 1.00 *1*
Required Date: 5/02/14 **Req'd Qty:** 1.00 *1*
Reference:
Cust Item ID:
Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC5- Inspect part completeness to step on W/O	0.00 DAS 27 5-89							
150 QC Quality Control	**Memo**	0.00 M\|S\|23							
160	Identify as per dwg & Stock Location: 8-126	0.00							
160 Packaging Packaging	**Memo**	0.00				IX		14-5-26 DAS 28 5-89	
170	QC21- Final Inspection - Work Order Release	0.00							
170 QC Quality Control	**Memo**	0.00				MLS 14-05-27			

14-5-26

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric
☐ Cracks
☐ Crimp/Kink/Ripple/Wave
☐ Cuffs
☐ Crushing
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Marks/Chatter
☐ Turning Sequence
☐ Wave/Twist in Tube

General

☐ Bend
☐ BOM/Route
☐ Broken/Damage/Defect
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drawing
☐ Drill Holes
☐ Finish
☐ Fit/Function
☐ Folio/Program
☐ Grain
☐ Hardware
☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
☐ Mislabeled
☐ Misread
☐ Off-set
☐ Out of Calibration
☐ Out of Sequence
☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

Picklist Print

April-24-14 8:25:52 AM

Work Order ID: 116863 *116863*

Parent Item: D4803-1 *D4803-1*

Parent Item Name: Strut

Start Date: 5/02/14 **Required Date:** 5/02/14

Start Qty: 1.00 **Required Qty:** 1.00

Comments: IPP REV:A NEW ISSUE 14-01-16 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M174PH-H900R0.500		Purchased	No				f	67.0417		1			
M174PH-H900R0.500									**			14/05/14	DAS 40 ~~9-89~~
17-4SS H900 ROUND BAR 0.500													

Location	Loc Qty	Loc Code	
MAT031	67.0417		
M127334	4.65		
P M128314	38.1		1.0
M128809	24.2917		

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐ ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric
☐ Cracks
☐ Crimp/Kink/Ripple/Wave
☐ Cuffs
☐ Crushing
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Marks/Chatter
☐ Turning Sequence
☐ Wave/Twist in Tube

General

☐ Bend
☐ BOM/Route
☐ Broken/Damage/Defect
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drawing
☐ Drill Holes
☐ Finish
☐ Fit/Function
☐ Folio/Program
☐ Grain
☐ Hardware
☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
☐ Mislabeled
☐ Misread
☐ Off-set
☐ Out of Calibration
☐ Out of Sequence
☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

DART AEROSPACE LTD	Work Order:	116863
Description:	Part Number:	DY805-1
Inspection Dwg: DY803 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

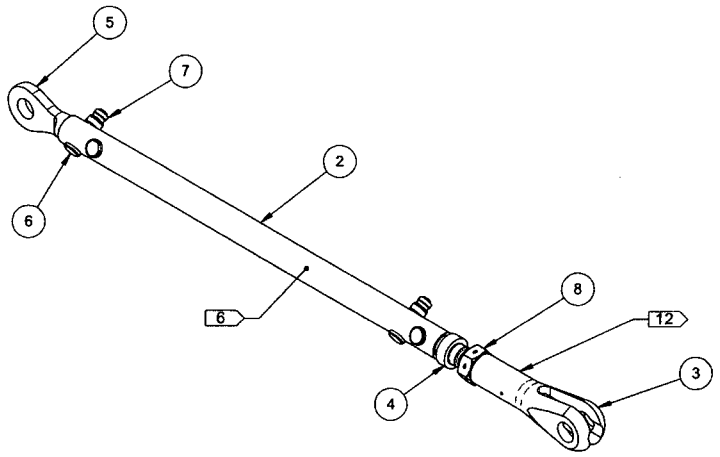
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.28	± .030	1.275	✓		VERN	PHD-12
Ø.422	+.001 -.000	.423	✓		PING	
Ø.394	+.006 -.001	.394	✓		"	
.38	± .030	.373	✓		VERN	PHD-12
.500	± .010	.500	✓		"	"
7.615	± .005	7.616	✓		VERN	CNC-02
8.88	± .030	8.880	✓		"	"
.125	± .010	.125	✓		PING	
	DAS 40 9-89		DAS 20 9-89			

Measured by:		Audited by:		Preliminary Approval:	
Date:	14/05/14	Date:	14-05-14	Date:	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15

ITEM NO.	QTY. -041	PART NUMBER	DESCRIPTION
1	X	D4803-041	BAR ASSEMBLY, SWAY
2	1	D4803-1	STRUT
3	1	D4806-1	CLEVIS
4	1	D4806-3	STUD
5	1	D4869-1	END FITTING, EYE
6	4	HL20PB5-8	HI-LOK PIN
7	4	HL86-5	HI-LOK COLLAR
8	1	NAS509-6C	NUT, JAM



116863 MCJ
14-04-25

D4803-041 BAR ASSEMBLY, SWAY

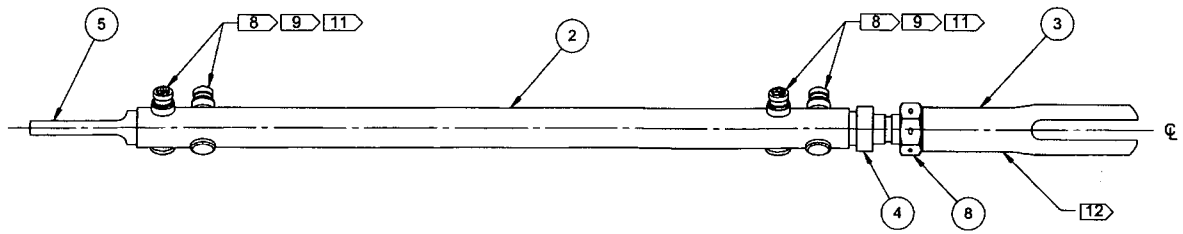
NOTES:
1) MATERIAL: N/A
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
7) WEIGHT: 0.54 lbs
8) ALIGN PILOT HOLES IN D4803-1 WITH PILOT HOLES IN D4806-3 & D4869-1.
 DRILL OUT EACH HOLE USING A P/N 13-SB65 (0.125) PILOTED DRILL.
 REAM EACH HOLE USING P/N 31-219 (Ø0.1610) REAMER, USING DART TOOL SETUP DT9976
9) INSTALL PIN/COLLAR AND END FITTING WITH HYSOL EA934NA WHILE STILL WET
10) ASSEMBLE PER DART TOOL DT9976
11) INSTALL HL20PB5-8 HI-LOK IN ORIENTATION SHOWN
12) USE TECTYL 502C CLASS I, MIL-PRF-16173E GRADE 2 OR EQUIVALENT ANTI-SEIZE COMPOUND ON THREAD

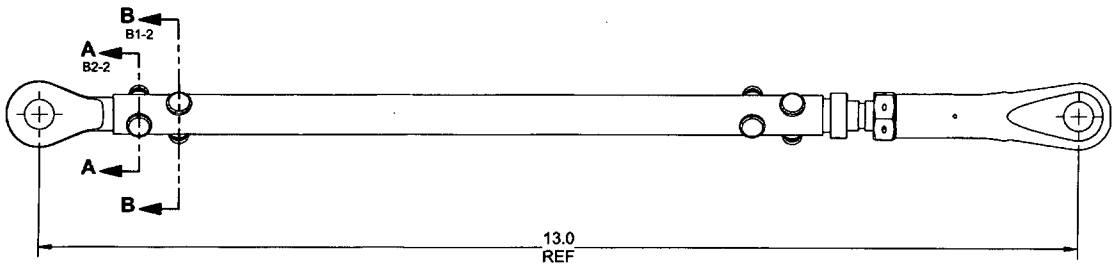
REV.	DESCRIPTION	BY	DATE
A	NEW ISSUE	RF	13.09.16

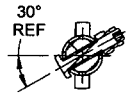
APPROVED

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED	DC	DRAWING NO. D4803 REV. A
MFG. APPR.	JLM	SHEET 1 OF 3
APPROVED	HS	TITLE BAR ASSEMBLY, SWAY SCALE NTS
DE APPR.	DS	
DATE	13.12.18	

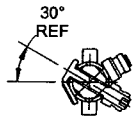
COPYRIGHT © 2013 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.







SECTION A-A C7-2
2 PL



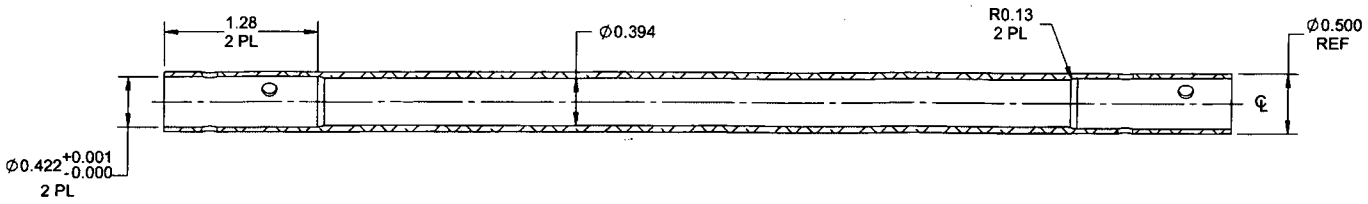
SECTION B-B C7-2
2 PL

D4803-041 BAR ASSEMBLY, SWAY
AUXILIARY VIEW

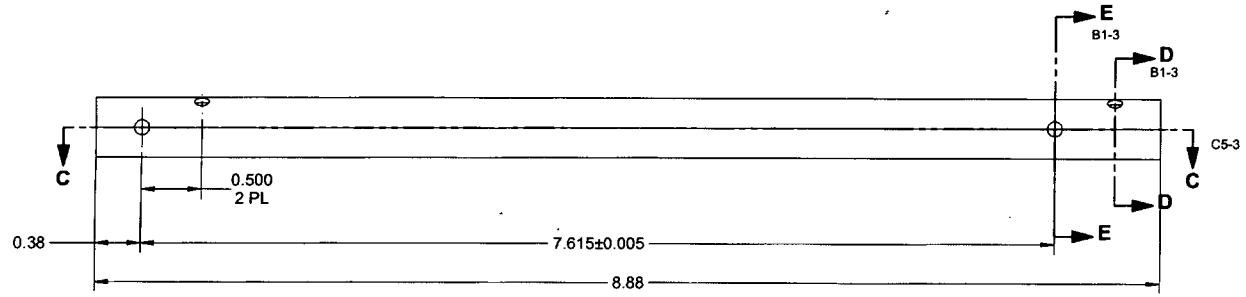
APPROVED

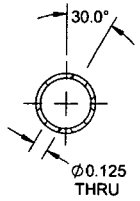
DESIGN	RF	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED	DC	DRAWING NO. D4803 REV. A SHEET 2 OF 3
MFG. APPR.	JLM	
APPROVED	HS	TITLE BAR ASSEMBLY, SWAY SCALE NTS
DE APPR.	DS	
DATE 13.12.18		

COPYRIGHT © 2013 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

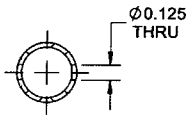


SECTION C-C C7-3





SECTION D-D C3-3
2 PL



SECTION E-E C3-3
2 PL

D4803-1 STRUT

NOTES:
1) MATERIAL: 17-4 PH/S17400/TYPE 630 SS ROUND BAR, H900 CONDITION
PER AMS 5643/ASTM A564
DART SPEC M17-4-R
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A
7) WEIGHT: 0.17 lbs
8) LIQUID PENETRANT INSPECT PER QSI 038 6.1.1 (ASTM E1417 LEVEL 2)

APPROVED			
DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	DC	DRAWING NO. D4803	REV. A
MFG. APPR.	JLM		SHEET 3 OF 3
APPROVED	HS	TITLE BAR ASSEMBLY, SWAY	SCALE NTS
DE APPR.	DS		
DATE	13.12.18		

COPYRIGHT © 2013 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD

skyservice Work Order Traveler

Sky Service F.B.O. Inc.

DOT APP 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO20990	**Customer:** Dart Aerospace Ltd.	**Dept:** NDT YUL	**Reference:** 24315
Descr:	**PN:**	**S/N:**	**Qty:** 1
Make:	**Model:**	**Reg:**	**A/C S/N:**
TSN: 0	**CSN:** 0	**TSO:** 0	
Task: UNSCHEDULED			**Sequence:** 1

Work Required:

CARRY OUT NDT INSPECTION (LIQUID PENETRANT) ON 4 CROSSTUBES + 21 MISC PARTS

- ITEM ID: D212-664-101 FWD CROSSTUBE - HIGH
1 - WORK ORDER ID#: 119748
2 - WORK ORDER ID#: 117055
3 - WORK ORDER ID#: 117056
4 - WORK ORDER ID#: 117057
- ID#: D4804-1 STRUT
5 - WORK ORDER ID#: 116866 (QTY2)
- ID#: D4803-1 STRUT
6 - WORK ORDER ID#: 116863 (QTY1)
- ID#: D4804-2 STRUT
7 - WORK ORDER ID#: 116708 (QTY1)
- ID#: D4801-1 STRUT
8 - WORK ORDER ID#: 116952 (QTY1)
- ID#: D4868-1 STRUT
9 - WORK ORDER ID#: 116535 (QTY4)
- ID#: D4928-1 STRUT
10 - WORK ORDER ID#: 116569 (QTY2)
- ID#: D4879-1 STRUT
11 - WORK ORDER ID#: 116566 (QTY2)
- ID#: D4867-1 STRUT
12 - WORK ORDER ID#: 116533 (QTY4)
- ID#: D4866-2 STRUT
13 - WORK ORDER ID#: 116531 (QTY2)
- ID#: D4866-1 STRUT
14 - WORK ORDER ID#: 1168529 (QTY2)

DAS 27 5-89 MJ/23

Action Taken:	Date:	Initial/Stamp:
LIQUID PENETRANT INSPECTION CARRIED OUT ON ITEMS LISTED ABOVE (ITEMS 1-14) AS PER ASTM1417M-13 NO CRACK FOUND Pen: ZL-56 BATCH# 09H094 EXP. DATE: AUG 2014, DEV: SKD-S2 EXP. DATE: OCT2017 CLEANER: SKC-S EXP. DATE: APR 2018	MAY 23 2014	DOT-APP 177 53-89

Description	*Location*	*P/N*	*Qty*	*Batch*	*S/N Off*	*S/N On*

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature:	**ACA/SCA Stamp**	Date:
Name: ANTONINO MARCHETTA	DOT-APP 177 53-89	MAY 23 2014